NATIONAL SECURITY AGENCY
FORT GEORGE G. MEADE, MARYLAND

Serial: ADVA-31/01/60

1 JUL 1960

CONFIDENTIAL

Director, Central Intelligence Agency
2430 E Street, N. W.
Washington 25, D. C.
ATTN: Chairman, United States Intelligence
Board Committee on Documentation

Dear Sir:

Herewith my comments on CODIB-D-58, as revised.

"1. <u>Need for real-time translation</u>" The expression "real-time" perhaps sounds an unduly urgent note. Wouldn't it suffice to indicate that there is an urgent need for translations, and that present requirements greatly exceed the capabilities of human translators?

"2. <u>Status of the U.S. MT program</u>" I can't agree that either Georgetown or IBM "have demonstrated machine results indicative of early operational capability." Much more research of the type outlined in the first few sentences of this paragraph is necessary before any group will be able to demonstrate operational capability, as is pointed out in Paragraph 9.

"3. <u>Degree of support justified</u>" There are two questions here. First, has MT research reached the stage where a large-scale facility should be considered? and second (if the answer to the first question is yes), is a central facility desirable? The answer to the first question, I think, is no. I do not think the second question has been adequately discussed. It is not obvious to me why central facility would be preferable to, say, a number of small specialized facilities.

"5. <u>Current status of IBM project</u>" First, I don't agree that the present IBM output is readable. Second, it is impossible "to reduce the entire series of operations affecting translation...to a table look-up procedure." "Programming in the usual sense of digital machines" may not be required, but some kind of programming certainly <u>will</u> be required in connection with the word analyzer. Furthermore, the character of the special purpose equipment means that the word-analyzing routines will be very cumbersome to debug.

"6. <u>Problem areas and proposed solutions</u>" The tone of this paragraph seems to contradict the preceding paragraph. May I suggest putting 5. and 6. together, omitting "Programming, in the usual sense...look-up and procedure."

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"7. Validity of the IBM technique" I suggest this paragraph be omitted.

"8. Other applications of special-purpose equipment" While the special suitability of the IBM system, as distinct from the usual computer, to non-numeric data has been repeatedly asserted, the truth of this is far from obvious. I would have thought that the true linguistic computer would be a hardware equivalent of something along the lines of Yngve's COMIT or Brown's SLC. These systems are hardly the last word but they are much more sophisticated than the IBM scheme.

"10. Conclusion" How about: "It would be premature to embark on any large-scale machine translation facility."

Sincerely,

25X1

NSA member, CODIB Subcommittee
on Machine Translation

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